

#### For More Information:

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#### **Possible Pollutants**

- Fine-grained sediment
- Organics
- · Oil and Grease
- Trash
- Road Salt
- Metals
- Toxins

#### **Good Housekeeping**

- Employee/Contractor Training
- Proper cleanup & disposal
- Dry cleaning methods
- Stormsewer retrofits

## **Related Procedures**

- Heavy Equipment/Vehicle Maintenance
- Spill Prevention & Response
- Vehicle Fueling

SOP - 25

# **Storm Sewer Cleaning**

# **Description**

Storm sewer cleaning is performed to remove pollutants and reduce flooding. Pollutants such as sediment particles, organics, oil, grease, trash, road salt, and trace metals are removed either manually or mechanically from storm drain inlets, storm sewer pipes and ponds. Without a storm sewer cleaning program, these pollutants would be otherwise ending impacting our ponds and river.

The goal of this Standard Operation Procedure (SOP) is to provide guidance for municipal employees to help prevent stormwater pollution. If services are contracted, this SOP should be provided to the Contractor. The contract should specify that the Contractor is responsible for compliance with all applicable laws.

In general, per industry standards, the storm sewer system should be cleaned every 5years. The goal is to clean 20% of the system annually. Cleaning frequency varies according to available resources, and also priority areas.

# **Procedures Pre-inspection:**

Pre-inspections of storm drainage structures are needed to prioritize cleaning and organize cleaning routes.

- Catch basin cleaning is triggered when the structure is 40% full of trash and debris.
  - If invert of outlet pipe is above the concrete bottom of the inlet box, use 40% rule.
  - If invert of outlet pipe flushed with concrete bottom of box, then use 1/3 of pipe rule
- Storm sewer lines are design to self-clean, but due to blockages or poor design, sediments can fill the pipeline. In this case storm lines should be cleaned when sediments fill more than 1/3 of the storm structure capacity

# **Vehicle/Equipment:**

- Operate Vac/Jet Truck according to manufacturer's recommended settings and standards
- Prior to operating the Vac/Jet Truck, perform a routine inspection. Check for leaks. If there is a leak, follow procedures in Spill Prevention and Response SOP.



• Follow safety practices when operating vac-jet truck, check overhead for power lines.

#### Cleaning:

- Whenever possible, performed cleaning activities from "top to bottom" (start upstream and finish downstream).
- Dry methods should be implemented first, such as vacuuming and picking-up trash using shovels or by hand (with hand protection). Wet cleaning methods, including jetting and flushing, should follow.
- Vacuum any wastewater generated from cleaning/jetting activities.
- Do not use any cleaning chemicals or flocculants during cleaning activities, unless the product, the application and collection practices are approved by supervisor.

# **Frequency**

- Clean storm sewer structures in accordance with the Annual Schedule (set by preinspections).
- Increase the frequency of storm sewer cleaning in areas prone to litter and dirt accumulation, sensitive areas (waterbody), and areas with a history of drains plugging.

## **Debris Disposal**

- Do not open the tank of the vac-jet truck near storm drains, creeks or river.
- Dewater vac/truck at approved location (at outdoor baywash area at WWTP)
- Pile trash/debris at approved location (at outdoor drying bed at WWTP). Allow pile to dry out for landfill disposal. Temporary storage area of debris should be protected from wind, rain and surface runoff (when applicable).
- If unusual waste is identified, contact supervisor for evaluation and proper disposal.

#### Others:

- Recordkeeping: field staff should document the location, cleaning date, LF or pipe and/or number of drainage structures cleaned.
- Field staff should look for evidence of illegal discharges or connections.

# **Employee Training**

• Train applicable employees who perform storm sewer cleaning on this written procedure. Conduct refresher training on the SOP for applicable employees.

# **Records:** The following records could be used to document activities performed:

- Annual Storm Sewer Cleaning Schedule showing priority areas for storm sewer cleaning.
- Log the number of LF of storm sewer lines jetted and/or number of storm inlets cleaned.
- Records of employee training with sign-in sheet.

